

**Please amend the ABSTRACT as follows:**

~~An arrangement for controlling a system according to the deviation between the value measured on the system and the value estimated by means of a model of the controlled system of at least one control parameter is disclosed. The arrangement comprises~~ includes a neural network, which generates the an estimation of the a control parameter according to a set of characteristic system parameters of the controlled system and of respective configuration parameters. A training module is associated with the ~~The neural network has associated thereto a training module, which can train said~~ trains the neural network by modifying said the configuration parameters according to a set of updating data. An acquisition module acquires the actual value, as measured measurements taken from on the controlled system, of a set of sensing parameters comprising at least one from among said control parameter and said characteristic parameters of the controlled system. A variation module is sensitive to the variations of said in the control parameter and generates an update-enable signal when the a control parameter falls outside a pre-set tolerance range. The acquisition module ~~being~~ is sensitive to said the update-enable signal and transfers the set of sensing parameters for transferring to the training module, as an updating-data set, said set of sensing parameters. A preferential application is for the control of fuel cell stacks.

**Clean copy of amended ABSTRACT:**

An arrangement for controlling a system includes a neural network, which generates an estimation of a control parameter according to characteristic system parameters and configuration parameters. A training module is associated with the neural network which trains the neural network by modifying the configuration parameters according to a set of updating data. An acquisition module acquires measurements taken from the controlled system. A variation module sensitive to variations in the control parameter generates an update-enable signal when a control parameter falls outside a pre-set tolerance range. The acquisition module is sensitive to the update-enable signal and transfers the set of sensing parameters to the training module, as an updating-data set.